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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,466	01/09/2002	Christophe Quentin	214154US3PCT	4691

22850 7590 09/08/2004

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EXAMINER
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HUG, ERIC J

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/926,466

Applicant(s)

QUENTIN ET AL.

Examiner

Eric Hug

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 and 8-19 is/are rejected.  
7) ☒ Claim(s) 5-7 and 15 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claim 15 is objected to because of the use of 'in particular' within the phrase "obtained in particular by the process as claimed in claim 1".

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 13, 14, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 13 and 14, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex*

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*parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 13 recites the broad recitation "sheets of glass with a thickness of less than 2 mm", and the claim also recites "particularly sheets of film glass" which is the narrower statement of the range/limitation. Claim 14 recites the broad recitation "by a float process", and the claim also recites "particularly by the process as claimed in claim 1" which is the narrower statement of the range/limitation.

Claim 19 provides for the use of film glass, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 19 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 8, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mouly et al (US 4,749,400) in view of Anderson (US 4,162,907).

Mouly teaches processes for cutting glass made by the float glass method, wherein a continuous ribbon of molten glass is formed on a molten bed of tin. See Figures 10-11 and column 11, lines 8-68, which correspond specifically to longitudinal edge trimming rather than transverse sheet cutting. Thickened edges are formed by the float glass process, and such edges have undesirable properties compared to the rest of the glass. The edges are therefore trimmed away from the remaining portion of glass. The glass is trimmed by way of rotary blades located immediately after the float bath. The blades cut the glass while the glass is still at an elevated temperature and still in a softened state. The blades are used in conjunction with heaters to maintain the glass at the elevated temperature during cutting. This process also avoids cooling of the glass and subsequent need for reheaters, scoring devices, or glass bending/breaking devices. Mouly differs from the present invention in the cutting blades are located immediately after the formed glass sheet is lifted by rollers from the molten tin bed.

Anderson discloses a method of cutting molten glass on a molten tin bath into sheets. The glass is made by providing a predetermined volume of molten glass onto a bath of molten tin. The molten glass is first extruded onto a tin bath into a sheet of desired thickness. A cutting

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mechanism is then disposed above the molten glass. Cutting blades are moved back and forth along the width and length to cut the molten glass into sheets of desired size. The lengthwise cutting equivalently trims the longitudinal edges of the sheet. See particularly column 10, line 62 to column 11, line 27 for description of the cutting mechanism, and column 15, line 44 to column 16, line 24 for description of the cutting operation. The sheets are then transferred from the tin bath to subsequent processing steps. Thus, Anderson teaches cutting glass sheets on the bath of molten tin (i.e., in the forming zone) as per the present invention. Anderson also teaches that cutting glass sheets in this manner overcomes problems associated with glass cutting in the hardened or annealed state that limit production (see particularly column 2, line 18 to column 3, line 6).

It would be immediately envisioned that the cutting process of Mouly would be improved upon by providing cutting in the forming zone and thereby avoiding any need for reheaters to maintain the glass at the forming temperature, while the at the same time achieving the set purpose of cutting the sheet before it cools and/or before it is transported to subsequent processing steps. Therefore, at the time of the invention, it would have been obvious to one skilled in the art to trim the edges of the glass sheet in Mouly as taught by Anderson, in the forming zone rather than immediately after the forming zone, to obtain the additional advantages thereof.

Note that the cutting in both Mouly and Anderson takes place at elevated temperatures where the glass is still in a softened state, and above the Littleton point as defined by Applicant. The features of the process of claims 1-4, the processing plant of claim 11, and the glass ribbon of claim 14 are described above. Regarding claims 8, 12, and 13, the claims are unpatentable in

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further view of legal precedent. The Federal Circuit's predecessor court, the CCPA, has repeatedly held that presumption of obviousness was formed, based on the ken of routineer, whenever a difference was deemed minor. *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), it was held that the size of an article is not a matter of invention, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) it was held that mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled.

*In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device; the claimed device was not patentably distinct from the prior art device. The speed (less than 10 m/min) of claim 8, the dimensions (20 m length x 4 m width) and production rate (20 tons per day) of claim 12, and the product thickness (less than 2 mm) of claim 13, do not distinguish the present invention from prior art float glass processes, processing plants, or products merely on the basis of the claimed dimensions.

4. Claims 9, 10, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mouly et al (US 4,749,400) in view of Anderson (US 4,162,907) as applied to claim 1 above, and further in view of Verlinden et al (US 6,092,392) and Machlan (US 3,622,298). In the float glass process of Mouly, roll forming is not disclosed, perhaps because there is no teaching in Mouly of sheet thickness. It is presumed that Mouly applies to float glass processes for making sheets of any desired thickness. Verlinden and Machlan both disclose well known processing

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steps of winding thin glass sheets (which can be of thickness less than the claimed 0.7 mm thickness) into a roll, wherein the glass rolls are formed on-line in conjunction with the sheet forming process so that the rolled glass can be later processed. Verlinden in particular discloses a float glass process. Verlinden also discloses chemically treating the glass prior or during roll formation to enhance the strength and handling stability of the glass rolls. In particular it is desired to chemically treat the glass after the edges have been trimmed (column 4, lines 22-24). Machlan discloses using paper inserts between each turn of the roll, which keeps the glass from sticking together (column 2, lines 30-40). Therefore, at the time of the invention, it would have been obvious to one skilled in the art to further utilize roll forming in the float glass process in order to obtain glass in rolled, continuous form for later processing. With further regards to the glass roll itself, the claims do not structurally distinguish the claimed glass roll from those presented in the above references.



*Allowable Subject Matter*

Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 5 is allowable for further providing a jet of gas directed toward the trimming point.

Claim 6 is allowable for further lifting the sheet from the metal bath at the trimming point.

Claim 7 is allowable for further providing guiding elements with spreader fingers for stretching the glass ribbon, and also providing a trimming instrument after the spreading fingers.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

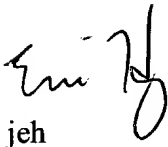
Despret (US 2,243,149) and Gelstharp (US 1,560,077) both disclose methods of cutting glass while in a softened state immediately after forming into a sheet.

Ritter, Jr. et al (US 3,124,444) discloses a process to remove the edges from a sheet of glass during the forming stage. A mass of molten glass is reduced to a sheet of uniform thickness by removing the marginal edges with pairs of coacting rotary cutting discs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192. The examiner can normally be reached on Monday through Friday, 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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